

REMARKS/ARGUMENTS

Re-examination and favorable reconsideration in light of the above amendments and the following comments are respectfully requested.

Claims 1 - 12 are pending in the application. Claims 1 - 5 and 8 - 12 stand rejected and claims 6 and 7 stand objected to.

By the present amendment, claims 1 and 10 have been amended; objected to claim 6 has been placed into independent form, and new claims 13 - 15 have been added to the application.

In the office action mailed January 3, 2005, claims 1 - 4 and 9 - 12 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,278,400 to Schwarzmnn et al.; claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Schwarzmnn; and claim 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Schwarzmnn et al. in view of U.S. Patent No. 3,094,310 to Bowmer.

The foregoing rejections are traversed by the instant response.

The present invention broadly relates to a turbine engine component having a trailing edge portion, which component has means for cooling the trailing edge portion. The cooling means comprises a plurality of rows of pedestals which vary in density along a span of the component. The component further has a passageway through which cooling fluid flows. The cooling fluid is supplied to the rows of pedestals for cooling the trailing edge portion. The number of rows of pedestals decreases in the direction of flow of the cooling fluid.

With regard to the rejection of claims 1 - 4, and 8 - 12 over Schwarzmnn on anticipation grounds, this rejection has

been mooted by the amendments to claims 1 and 10. Claim 1 now calls for the number of rows of pedestals to decrease in the direction of flow of the cooling fluid. As can be seen from FIG. 1 in Schwarzmann, the number of rows of pedestals 48 increases in the direction of flow in the passageway bearing the reference numeral 50. Thus, Schwarzmann does not teach or suggest the subject matter of amended claim 1. In fact, it teaches away from the claimed subject matter.

Claims 2 - 4, and 9 are allowable for the same reason that claim 1 is allowable as well as on their own accord.

Claim 10 is allowable because Schwarzmann does not teach or suggest "means for uniformly optimizing trailing edge slot coolant Mach number and velocity with coolant air temperature rise and local thermal convective efficiency and performance so that a substantially uniformly distributed coolant temperature is achieved as said cooling fluid is exhausted from said cooling slots from said inner edge portion to said outer edge portion." To have such a means, the highest number of rows of pedestals would have to be present at point where the cooling fluid enters the cooling passageway and the least number of pedestals would have to be present at a point remotest from where the cooling fluid enters the cooling passageway. Schwarzmann has the fewest number of rows of pedestals closest to the inlet to the passageway 50 and the highest number of rows of pedestals at the point remotest from the inlet to the passageway. The Examiner's attention is drawn to that portion of the specification beginning on page 3, line 19 and continuing to page 4, line 17 for an understanding of why Applicant's component has the

claimed means and why Schwarzmänn's component could not have the claimed means.

Claims 11 - 12 are allowable for the same reason as claim 10 as well as on their own accord.

With respect to the rejection of claim 5 on obviousness grounds, there is significance to the claimed numbers of pedestal rows. This significance is clearly pointed out in the aforementioned portion of the specification as well as in FIGS. 4 - 6. Thus, claim 5 is allowable for the same reason as claim 1, as well as on its own accord.

With respect to the rejection of claim 8 on obviousness grounds, it is submitted that the Bowmer patent does not cure the aforementioned deficiencies of Schwarzmänn. Thus, claim 8 is allowable for the same reasons as claim 1.

New claims 13 - 15 are allowable for the same reasons as well as on their own accord. For example, none of the cited and applied references teach or suggest the flow rate of claim 13 and/or the passageway having the inlet of claims 14 and 15.

For the foregoing reasons, the instant application is believed to be in condition for allowance. Such allowance is respectfully solicited.

Should the Examiner believe an additional amendment is needed to place the case in condition for allowance, he is hereby invited to contact Applicant's attorney at the telephone number listed below.

Appl. No. 10/717,806
Amdt. dated March 29, 2005
Reply to office action of Jan. 3, 2005

No fee is believed to be due as a result of this response.
Should the Director determine that a fee is due, he is hereby
authorized to charge said fee to Deposit Account No. 21-0279.

Respectfully submitted,

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By 

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I, Nicole Motzer, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on March 29, 2005.

